

Toxic Compensation Bills

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Congress has demonstrated interest in toxic compensation legislation, but not enough agreement to make significant progress. Advocates of reform claim that the legal system is heavily weighed against victims who seek compensation through the courts. Proposed reforms include a compensation fund and a cause of action in federal court. Critics have questioned whether these changes in the law would represent an improvement. Existing income replacement, medical cost reimbursement, and survivor insurance programs largely cover the losses of individuals with chronic disease. Thus, the need for an additional compensation is not clear. Furthermore, experience with compensation funds such as the Black Lung Fund suggests that political rather than scientific criteria may be used to determine eligibility. Finally, under the proposed financing mechanisms the compensation funds that are being debated would not increase incentives for care in the handling of hazardous wastes or toxic substances.

Introduction

During the past five years, various legislative proposals have surfaced in Congress that would substantially alter the procedures under which individuals are compensated for harms from toxic substances. Four recent proposals are of particular interest.

Congressman Miller has introduced legislation (H.R.3175) that would create a compensation fund for personal injuries attributed to occupational exposure to asbestos. Senator Stafford has proposed a compensation fund (S.517) for personal injuries resulting from environmental exposures to hazardous substances. This fund would be coupled with a cause of action in federal courts. Of three proposals by Congressman Florio, one (H.R.4813) is broadly similar in structure to that advocated by Senator Stafford, and a second (H.R.5640) drops the compensation fund while retaining other key features.

A basic issue one immediately confronts with respect to compensation is illustrated in the following example. Suppose a large group of individuals is exposed to a hazardous substance and that this exposure is correlated with an increase in the incidence of a chronic disease from a background level of 100 cases over the individuals' lifetime to 110 cases, 10 cases more than would have been expected in an unexposed group this size. Further, suppose there is no scientific technique that permits one to determine which 10 of the 110 cases resulted from the exposure in question. The issue is whether a social purpose is served by the payment of compensation tied to these harms. Should compensation be paid to all, some, or none of these individuals? If compensation is to be paid, how large should it be? What

administrative or legal mechanism should be used to effect compensation?

Some of the issues that should be addressed in evaluating proposals for new compensation legislation include: (1) do existing income replacement and medical care programs, including tort actions, provide sufficient compensation to individuals who have a chronic illness that may have originated with exposure to hazardous substances, and (2) are incentives for due care by those who generate, transport or dispose of hazardous substances now adequate?

Background

The current congressional debate over toxic compensation has its roots in the legislation that created the "Superfund" for the cleanup of toxic waste dumps. At the time the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L.96-510) was enacted, Congress considered but rejected various proposals to include personal injury compensation within the scope of that legislation. Ultimately, personal injury compensation was not included due to uncertainty over the need for such a provision and pragmatic considerations related to passing the legislation. To help resolve the issue of need regarding personal injury compensation, Section 301(e) of CERCLA called for a report to Congress on the adequacy of existing legal remedies and recommendations for improvements in the law.

On July 30, 1983 the 301(e) Study Group submitted to Congress its analysis of existing remedies (1). Included was a recommendation for a two-tier system of remedies for personal injuries and damages caused by the release of hazardous substances from waste sites. The Study Group's "Tier I" proposal would represent a significant change in existing compensation systems. In-

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jured persons would have the option of pursuing an administrative fund remedy similar to that available under existing workers' compensation systems and the black lung program. The proposed Tier I remedy was intended by the Study Group to provide a speedy and effective means of compensating persons injured by (1) releases covered by CERCLA, i.e., from old hazardous waste sites, and (2) releases caused by failures in RCRA's cradle to grave containment of currently-generated wastes. Compensation would be made for medical costs and lost earnings (up to \$2,000 per month) as well as death benefits. Compensation for pain and suffering, property damages and punitive damages would not be made under the Tier I remedy but would be available should an individual prevail in a tort action under Tier II.

Access to Tier I remedies would be based on standards of proof much relaxed from traditional tort liability. Tort actions regarding toxic waste injuries generally require that the plaintiff (1) identify a party who is responsible, (2) prove that the substance caused an injury, and (3) show that the conduct of the responsible party did not meet a common law standard of care or that the activity was so hazardous that it should be governed by rules of strict liability. Under the Tier I recommendation, claimants would not need to identify the party or parties responsible for a release of a hazardous waste. The compensation fund would have the right of subrogation against responsible parties for releases that occurred after the creation of the Tier I remedy. This right of subrogation would give the fund all of the legal rights formerly held by the claimant; thus the fund could consolidate cases relating to a single release and seek reimbursement of its compensation expenditures from a responsible party. To the extent fund expenses are reimbursed, incentives for care are given to waste generators and disposal firms (2).

With respect to proving that an exposure to a toxic substance caused an injury, the Study Group recommended that the federal administrator of the Tier I system develop and issue Toxic Substance Documents that review and analyze the health dangers from specific substances—much like criteria documents currently developed under the Clean Air Act. Because of scientific uncertainty concerning the relationships between exposure to hazardous substances and specific diseases, the Study Group advocated the use of presumptions regarding causation. Specifically, if the claimant could establish exposure to a hazardous waste and an injury or disease that is scientifically linked to such exposures, a rebuttable presumption would be established that the claimant's harm was caused by that exposure.

Finally, the claimant would be relieved of the need to establish that a defendant's conduct was improper. Traditional theories of tort liability such as negligence, nuisance and trespass all involve an assessment of the conduct of the defendant in a particular circumstance. Violation of a standard of care under one of these theories subjects the defendant to liability whereas adherence to a standard of care may bar or limit recovery by

the plaintiff. The proposed Tier I remedy would eliminate breaches of a standard of care by the defendant as prerequisites for compensation of a claimant.

The Tier I proposal of the 301(e) Study Group has been criticized from several perspectives. Substituting loosely worded presumptions for traditional tort law requirements that a claimant demonstrate exposure, causation, and breach of a standard of care by a defendant radically alters a claimant's prospects for recovery. Although best scientific evidence is that perhaps 5% of cancers are of occupational origin and an additional 2 or 3% of environmental origin (3), critics of the Study Group proposals point out that nearly the entire U.S. population has some, albeit low, exposure to cancer-causing toxic substances. With liberal presumptions regarding causation, a large fraction of cancer victims and others with chronic disease could make a successful claim against the Tier I fund.

To return briefly to the hypothetical example posed at the outset of this paper, the Study Group Tier I fund remedy would appear to deem as compensable all 110 cases—the background 100 cases as well as the 10 additional cases that could be attributed statistically to toxic substances.

In addition to the Tier I remedy, the Study Group advocated a "Tier II" cause of action in state courts and the reform of state law. Few states at present provide a specific cause of action for those with injuries from hazardous wastes or toxic substances. The Study Group asserted that while state common law does provide a cause of action in all states, it is heavily stacked against a victim in these cases. Thus further broadening of state causes of action is needed.

Critics have pointed out that the combined Tier I and Tier II remedies further shift the balance toward over compensation of individuals with chronic disease. Monies obtained under Tier I could be used to finance a lawsuit under Tier II, giving individuals with chronic disease two opportunities to collect compensation for their disease. If toxic substances and hazardous wastes were causing large numbers of chronic illnesses such a compensation scheme might be warranted, but, as noted earlier, scientific evidence suggests otherwise. Consequently, critics charge that the combined Tier I and Tier II remedies amount to nothing short of national health insurance for all victims of chronic disease cast, however, in the politically appealing guise of an attack on the irresponsible generation and disposal of hazardous wastes.

Many of the basic proposals of the 301(e) Study Group have been incorporated into the toxic compensation bills now before Congress. In evaluating these proposals, it is essential to review the existing structure of compensation mechanisms. Two perspectives are particularly important. First, how broad is the coverage in terms of compensating deserving individuals and second, are incentives for care incorporated in the mechanism that finances compensation? We will turn to the first of these issues initially.

A Review of Existing Compensation Mechanisms

In assessing the need for and desirability of changes in the mechanisms that compensate individuals with chronic illness, an important consideration is the depth and breadth of coverage under existing compensation programs. A review of existing compensation mechanisms should help to determine (1) if there are large numbers of people whose losses presently go uncompensated by existing mechanisms, and (2) the extent of coverage in terms of the percentage of the loss that is replaced. This review is intended to look at the compensation mechanisms as they potentially would be available to anyone in the U.S. with a chronic illness. The question of how many of such illnesses might be caused by toxic substance exposure is not considered.

At the outset, one may note that compensation can take two forms: as a payment for bearing risk that precedes any injury and as a payment to an individual who incurs a loss. This review focuses on the second form of compensation—payments made after a loss has occurred.

Economic losses by individuals with chronic illnesses may be categorized as follows: lost income while the individual lives, medical expenses, lost income from premature death, pain and suffering, and loss of nonwage contributions to the family and society. The most recent, relatively complete information on the extent to which individuals disabled by chronic illnesses are recovering their lost income (4), suggested that approximately 40% of the pre-tax income lost by those severely disabled by occupational disease was replaced. The percentage of workers with various sources of support included: social security, 53%; private pensions, 21%; veterans benefits, 17%; welfare, 16%; workers' compensation, 5%; and private insurance, 1%. Tort actions compensated less than 1%. In this sample, 45% of those severely disabled by occupational disease received support from a single source; 29% received support from two sources, and 5% received support from three or more sources. Some 22% received no form of income replacement. Social security provided not only the broadest coverage but it also was increasing rapidly during the period in which the data were collected (1974). Thus, coverage today is likely to be broader than it was at the time of the survey.

In terms of the number of people covered, private insurance is the dominant mechanism for meeting the medical expenses associated with chronic illness. Presently approximately 80% of the population has some form of private hospitalization insurance and over 65% of the population has private insurance coverage for major medical expenses. Public medical care under Medicare, Medicaid and veterans' programs now provides higher total dollar payments than do private insurers. In 1982 Medicare paid some \$51 billion, Medicaid \$30 billion, and private insurance approximately \$65 billion in medical benefits.

Private insurance and the social security survivors program are the principal sources of compensation in

the case of death. In 1982, death benefits of approximately \$15 billion were paid by life insurers. Under the survivors insurance component of social security, approximately \$29 billion was paid in 1982 to widows, widowers and surviving children of deceased individuals covered by social security.

Incentive Effects

In terms of the dollar amounts paid in compensation, tort actions pale in significance relative to other private and public programs. For example, in recent years, less than \$1 billion per year is awarded by the courts to plaintiffs alleging harms due to toxic or hazardous substance exposure. However, tort actions are very important from another perspective—that of providing incentives for care. Whereas public compensation and private insurance programs are financed through charges levied prospectively on a large group of individuals, tort liability is retrospective in its assessment of charges. Public compensation and private insurance spread risks but tort liability focuses the costs of harm on those determined to be at fault by the court. Therefore, though it appears that existing compensation mechanisms provide reasonably complete coverage for potential victims of hazardous waste or toxic substance exposure, an assessment of compensation through tort actions is also important from the perspective of incentives for care.

Under state common law, a plaintiff may have a cause of action for personal injury and property damage once injuries have occurred. Four cases of action are potentially available for environmental exposures: negligence, nuisance, trespass, and strict liability. With the exception of some forms of strict liability, these causes of action center on the conduct of the defendant. For any of these causes of action, a plaintiff must demonstrate by a preponderance of the evidence (1) that the defendant made, disposed of, or was otherwise responsible for the substance in question, and (2) that the plaintiff suffered a harm from exposure to the substance. A plaintiff may encounter additional obstacles to litigation, including the costs of pursuing such a suit, immunity for the government, and restrictive statutes of limitation.

Identifying the Defendant

With few exceptions, a plaintiff must prove that the defendant made, sold, or disposed of the product that caused the injury. When injuries are discovered only after several years have elapsed, courts have relaxed this burden of proof in some instances. Five theories of liability have been used in lieu of proof of identification of the defendant.

The theory of "alternate liability" shifts the burden of proof to the defendants to prove they should not bear the liability. This theory was used in *Summers v. Tice* (5), where the plaintiff was unable to prove which of two hunters fired the birdshot that caused injury to his

eye. Some courts have adopted "expanded alternate liability" so that a plaintiff need not sue all potentially liable parties and that defendants need not be better able than the plaintiff to offer evidence as to the cause of harm. Most courts, however, have rejected "expanded alternate liability."

"Concert of action" is a second theory plaintiffs have used when the identity of the source of harm is not certain. Traditionally, this theory was used when defendants acted according to a joint scheme in causing harm to another party. In the DES case, *Bichler v. Eli Lilly* (6), the court upheld liability under a concert of action because the defendant drug manufacturer was found to have engaged in parallel testing and marketing practices with others in the industry and because they encouraged other manufacturers to do inadequate testing. Most courts, though, have rejected the concert of action theory in DES cases.

A third theory of expanded liability is termed "industrywide liability" or "enterprise liability." This theory shares features of the first two theories. The plaintiff can recover damages when it can be shown that the identity of the specific manufacturer is unknown to him and that all manufacturers in the industry controlled industry standards and therefore the risks to product users. This theory has never been applied successfully to a DES case, perhaps because of the larger number of manufacturers. The theory has been accepted for industries where a dominant firm initially controlled the marketing, e.g., blasting caps.

The fourth theory, "market share liability," arose in the decision of the DES case *Sindell v. Abbott Labs* (?). Under market share liability, defendants may be held liable for a portion of the damages based on the market share they held. Market share liability has been affirmed in New Jersey courts (8) and in Texas (9), but rejected in other state courts, including those of Georgia, South Carolina, and Florida.

A recent Wisconsin case, *Collins v. Eli Lilly* (10), provides a fifth theory of liability. After describing the four previously enunciated theories, the court created a new rationale: each defendant contributed to the risk to the public. Moreover, the plaintiff could sue just one defendant; that defendant must then join other defendants in the case in order to escape full liability. Liability would be apportioned among the defendants according to several considerations, including their knowledge of the risk at the time of manufacture, warnings they used, testing, and market share.

Causation

Under a specific cause of action or under state common law, a plaintiff ultimately will have to demonstrate exposure to hazardous substances and a causal connection between that exposure and the plaintiff's injury. The relevance of quantitative scientific data to hazardous substance lawsuits is obvious. Whether such evidence will be deemed admissible in the courtroom is

problematic. Despite the apparent relevance of this type of data, its use is controversial in some jurisdictions. Several explanations may be offered. One factor which runs through many legal precedents is a distrust of statistical evidence. Animal studies may be viewed as irrelevant to issues of causation in humans. Statistical evidence also is subject to many interpretations. Finally, statistical evidence may be excluded if sample sizes were small, controls were not used for confounding variables, or the results are otherwise subject to question. Almost all of these criticisms would apply to any study of human health effects from hazardous substances, particularly a localized incident such as a spill or a leaking waste disposal site.

The usual standard of proof of causation required in tort is termed "preponderance of the evidence." This is normally interpreted to mean that the probability of causation was more likely than not, i.e., the probability that the harm was caused by the defendant is greater than 50%.

Many chronic diseases have multiple causes—for example, cancer at certain sites may be caused by toxic agents as well as diet, smoking, and diagnostic radiation. A problem with tort actions, both as a compensation device and as a mechanism for providing incentives for greater care is that only rarely would a single source of the several that may be implicated pass the 50% probability threshold. Thus, toxic agents could produce large numbers of low-level risks of chronic disease to individuals and yet not meet the legal definition of causation in any of the cases that might result. Collectively, small risks of disease to many individuals imply that some individuals will contract those diseases. That those individuals cannot be distinguished from individuals who contracted the disease from other sources such as diet and lifestyle may be reason enough that they go uncompensated by the tort system. However, if no compensation is paid for such harms, the correct incentives will not exist for due care and risk avoidance.

Other Burdens on the Plaintiff

Several other features of tort litigation over toxic substance exposure deserve mention. One is the cost to plaintiffs of marshalling the evidence necessary to pursue a lawsuit. Extensive literature reviews and scientific studies are needed; even if the plaintiff is lucky enough to have EPA intervention over a waste site that identifies the responsible parties and the toxic substance, medical evidence on disease causation must still be produced. Good scientific studies are expensive. However, class action or mass torts could facilitate the pooling of resources by groups of individuals in order to acquire needed scientific information.

Legal fees are another constraint on access to the tort system. In testimony before Congress, George Freeman has noted that plaintiff's attorneys are seldom willing to take cases on a contingent fee basis unless the claim exceeds \$75,000. Plaintiffs may have difficulty

finding counsel for smaller claims (1). Furthermore, studies of the costs experienced by asbestos litigants show that legal expenses may absorb two-thirds of the financial outlay by the defendant (11).

Another barrier in hazardous substance tort litigation occurs when the responsible party is immune from litigation. If the federal government owns a site, victims may be barred from recovery because of sovereign immunity. Barriers to private action also occur when the operator of a waste facility has declared bankruptcy or is financially unable to pay compensation. Finally, in a few states victims may be barred by a harsh statute of limitations that bars tort actions more than two or three years following the date of last exposure. While statutes of limitations for long-latency diseases are being tempered by using discovery of the disease rather than exposure to determine the statutory period, victims still face the challenge of amassing evidence for harms that may have occurred 20 years or more previously.

This review of the legal remedies currently available for injuries and damages from hazardous wastes has shown that those who are injured sometimes face numerous barriers to recovery in our legal system. However, the common law is evolving rapidly, especially in the area of apportioning liability and in adopting a relaxed rule for applying the statute of limitations for filing suits. At present 39 courts use the date of discovery rule in setting the statute of limitations.

A computer search of toxics-related litigation in 1974 produced only two examples: the 1973 Borel asbestos decision and a 1967 silicosis case. Now thousands of such cases are being filed annually. Approximately 25,000 asbestos cases have been filed; more than 1000 involve DES, several hundred involve formaldehyde, and others concern exposure to benzene, Agent Orange, various drugs, and other chemicals (12). Though still relatively uncommon, a number of cases have been filed for alleged health effects from drinking water contaminated by hazardous wastes. Thus, an argument could be made that as the common law evolves some of the barriers noted by the 301(e) Study Group will fade in importance.

The one key advantage of tort liability is that judicial verdicts provide a direct economic incentive for firms and individuals who produce, transport and dispose of hazardous substances to engage in appropriate levels of care to minimize liability from tort actions. Because of these economic incentives, it may be important to preserve or enhance opportunities for tort actions regarding personal injury from exposure to hazardous substances. However, a factor that may dilute incentives is that personal injuries due to hazardous substances, especially those originating from environmental exposures, typically become apparent only after long delays. These lags may reduce significantly the incentive effect one would otherwise observe if events and responses were contemporaneous. For example, if a waste generator faces potential liability 20 years hence, each dollar of that liability would be only a few pennies today at conventional (market) rates of discount. More-

over, future liability is capped by the magnitude of a corporation's net assets at that future date because a firm always has the option of going bankrupt and escaping further costs when liabilities exceed assets.

The incentive effects that could be produced through existing tort liability or through tort law reform do not appear to have been a major consideration of either the 301(e) Study Group or the drafters of toxic compensation bills now before Congress. Indeed, under these proposals, compensation funds would be financed by a broad tax on chemicals and petrochemical feedstocks, in certain cases to be augmented by a tax on waste disposal. Taxes paid to finance the fund would produce negligible incentives for care. However, the federal cause of action and the rights of the fund managers to litigate to recover for payments to victims could produce incentives. Whether these incentives would be appropriate in magnitude to induce due care has not been analyzed, either by the drafters of the proposed legislation or by various commentators.

Evaluating Alternative Remedies

This country has had considerable experience with fund mechanisms for compensating personal injuries. The Black Lung Fund and other federal fund programs share several features of the proposed Tier I compensation fund. U.S. experience with the Black Lung Fund highlights a key difficulty with funds, namely, that pressures are brought through the political process to broaden coverage to include nonmeritorious cases.

Coal dust inhalation has long been known to cause respiratory disability among miners, particularly in underground mines. Despite considerable medical evidence as to the occupational nature of coal miners' black lung, affected miners were largely unable to obtain compensation through state workers' compensation. The first major reform in compensation for this occupational disability came as part of the Federal Coal Mine Health and Safety Act of 1969. At that time, the federal government assumed responsibility for making payments to workers who were totally disabled from the disease. Future compensation costs were estimated to total some \$350 million.

In the original 1969 legislation, payments to disabled miners were to be made by the government for only four years. After that date, claims were to be assigned to prior employers for payment. Assigning liability to responsible parties was found to be much more difficult than expected, however, leading to the eventual creation of an industry-financed fund to compensate disabled miners. Financing for the fund came principally from a two-tier tax on production: initially \$0.50 per ton on underground coal and \$0.25 on surface coal, subsequently raised to \$1 and \$0.50 per ton, respectively. This funding mechanism provides no direct financial incentive to operators to avoid dust exposures by their employees.

During the 1970s, Congress and the agencies responsible for administering the program (first the Social Se-

curity Administration and later the Department of Labor) came under repeated pressure to liberalize the program so that more miners could receive benefits. Although benefit levels on an individual basis remain modest by almost any standard, the number of miners qualifying for benefits under greatly relaxed standards of eligibility rapidly grew to encompass well over half of all individuals with more than 10 years of mine employment. Despite recent tightening of eligibility standards, total program outlays exceeded \$15 billion by the end of 1983, or more than 40 times the original estimate.

As proposed in recent legislative initiatives, the Tier I fund remedy would be financed by a set of uniform taxes on chemical and petroleum feedstocks and perhaps be supplemented by a set of taxes on the disposal of hazardous wastes. A rebuttable presumption would be made in favor of claimants who could establish exposure to hazardous substances and an injury or disease that is believed in the scientific community to result from such exposures. Unless this presumption were rebutted successfully by a party or parties who caused the exposure, the claimant would be paid from the industry-financed Tier I fund.

Under the proposals of Congressman Florio and Senator Stafford, the federal agency charged with administering the fund would develop a series of scientific background documents on the relationships between exposure to hazardous substances and the risks of contracting various diseases. Material considered relevant to causation would include animal experiments, tissue cultures, epidemiology, and mutagenicity tests.

One unknown in these proposals is how the issue of causation would be handled in these documents and by the administering agency for particular diseases, substances, and exposed populations. Would the agency establish criteria so that only injuries and illnesses having a probability greater than 50% of having originated with exposure to hazardous substances would be compensated? Would some other threshold be used, if only implicitly? What role would animal tests play? If the experience of the Black Lung Fund is a guide, pressure to liberalize criteria will be brought by individuals who have illnesses or diseases that could have originated with hazardous substances but whose cases do not pass the causation threshold imposed by the administering agency. These pressures eventually could result in presumptions in favor of cases where hazardous substances have only a minimal probability of having caused the injuries or diseases of a group of claimants.

It would appear that toxic compensation funds do not merit further serious consideration as a compensation mechanism. Such funds would lack the ability to provide desirable incentive effects, would largely duplicate coverage already available under current programs, and would create a program that would be subject to the same pressures that led to the virtually uncontrolled expansion of the Black Lung Fund.

This review of tort liability observed that incentive effects are a distinct positive attribute. Indeed, several

recent reform proposals are directed at strengthening these incentives.

One step that has been advocated to improve existing remedies is to change some of the evidentiary requirements of tort actions. In particular, the burden of identifying the defendant and proving to a legal standard that the substance released by the defendant caused harm to the plaintiff could both be modified to a standard of proportional liability. To be sure many courts have already done this with respect to the burden of identifying the defendant. Liability in proportion to the probability of causation would appear to increase efficiency; tort awards would be more closely matched to the best estimate of loss rather than the current all or nothing outcome in court (13). To return once again to the hypothetical situation posed at the outset of this paper, proportional liability might compensate all 110 cases but only for the excess over background levels. That is, each individual would receive 10/110 share of an award.

Conclusion

The 301(e) Study Group report has identified several features of the tort system that may render it unattractive as a compensation device for those harmed by exposure to toxic substances and hazardous wastes. As supplements to the tort system, the Study Group proposed a Tier I compensation fund and a Tier II cause of action in state court. Two of the bills now before Congress adopt the fund proposal but replace the Tier II remedy with a cause of action in federal court. Other proposals dispense with the fund but maintain the cause of action in federal court.

Whether the two-tiered remedy proposed by the Study Group or the bills now before Congress represent an improvement over existing compensation mechanisms is doubtful. There is a great likelihood that Congress would respond to political pressures rather than best scientific evidence resulting in the compensation of large numbers of cases of dubious merit. Moreover, existing programs already may provide sufficient dollar payouts to individuals who have chronic disease.

If the incentive effects of a compensation program are deemed important, alternative reforms of the tort system might be a more logical step to take. One proposal has advocated the incorporation of proportional liability into tort law; however, the feasibility of implementing this potentially interesting proposal has yet to be evaluated.

The views contained herein are those of the author and do not necessarily represent the views of API or any of its members.

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